APPENDIX B

CLAIMS UNDER EXAMINATION

93. (twice amended) An isolated nucleic acid encoding a fusion protein comprising a HER-2/neu extracellular domain fused to a HER-2/neu phosphorylation domain, wherein the nucleic acid hybridizes under stringent conditions to the complement of a nucleic acid sequence encoding the amino acid sequence of SEQ ID NO:6, and separately to the complement of a nucleic acid sequence encoding the amino acid sequence of SEQ ID NO:3, and separately to the complement of a nucleic acid sequence encoding the amino acid sequence of SEQ ID NO:4, wherein the hybridization reaction is incubated in a solution comprising 5x SSC at a temperature of 50-65°C and washed in a solution comprising 0.2x SSC and 0.1% SDS at a temperature of 65°C, and wherein the protein is capable of producing an immune response in a warm-blooded animal.

94. (previously once amended) The nucleic acid of claim 93, wherein the nucleic acid encodes a fusion protein comprising an amino acid sequence of SEQ ID NO:3 linked to an amino acid sequence inclusive of Gln 991 to Val 1256 of SEQ ID NO:2.

95. (previously once amended) The nucleic acid of claim 93, wherein the nucleic acid encodes a fusion protein comprising an amino acid sequence of SEQ ID NO:8 linked to an amino acid sequence of SEQ ID NO:4.

96. (previously once amended) The nucleic acid of claim 93, wherein the nucleic acid encodes a fusion protein comprising an amino acid sequence of SEQ ID NO:8 linked to the amino acid sequence inclusive of Gln 991 to Val 1256 of SEQ ID NO:2.

97. (previously once amended) The nucleic acid of claim 93, wherein fusion protein comprises sequences that are linked via an amino acid linker.

98. (previously once amended) A viral vector comprising a nucleic acid of claim 93.

99. (previously once amended) A composition comprising the nucleic acid of claim 93, and a physiologically acceptable carrier or diluent.

100. (previously once amended) The composition of claim 99, wherein the composition is a vaccine.

101. (previously once amended) The composition of claim 99, further comprising an immunostimulatory substance.

102. (previously once amended) The composition of claim 99, wherein the nucleic acid is a DNA molecule.

103. (twice amended) An isolated nucleic acid encoding a fusion protein comprising a HER-2/neu extracellular domain fused to a fragment of the HER-2/neu phosphorylation domain, wherein the nucleic acid hybridizes under stringent conditions to the complement of a nucleic acid encoding the amino acid sequence of SEQ ID NO:7, and separately to the complement of a nucleic acid sequence encoding the amino acid sequence of SEQ ID NO:3, and separately to the complement of a nucleic acid sequence encoding the amino acid sequence of SEQ ID NO:5, wherein the hybridization reaction is incubated in a solution comprising 5x SSC at a temperature of 50-65°C and washed in a solution comprising 0.2x SSC and 0.1% SDS at a temperature of 65°C, and wherein the protein is capable of producing an immune response in a warm-blooded animal.

104. (previously once amended) The nucleic acid of claim 103, wherein the nucleic acid encodes a fusion protein comprising an amino acid sequence of SEQ ID

NO:3 linked to the amino acid sequence inclusive of Gln 991 to Arg 1049 of SEQ ID NO:2.

105. (previously once amended) The nucleic acid of claim 103, wherein the nucleic acid encodes a fusion protein comprising an amino acid sequence of SEQ ID NO:8 linked to an amino acid sequence of SEQ ID NO:5.

106. (previously once amended) The nucleic acid of claim 103, wherein the nucleic acid encodes a fusion protein comprising an amino acid sequence of SEQ ID NO:8 linked to the amino acid sequence inclusive of Gln 991 to Arg 1049 of SEQ ID NO:2.

107. (previously once amended) The nucleic acid of claim 103, wherein fusion protein comprises sequences that are linked via an amino acid linker.

108. (previously once amended) A viral vector comprising a nucleic acid of claim 103.

109. (previously once amended) A composition comprising the nucleic acid of claim 103, and a physiologically acceptable carrier or diluent.

110. (previously once amended) The composition of claim 109, wherein the composition is a vaccine.

111. (previously once amended) The composition of claim 109, further comprising an immunostimulatory substance.

112. (previously once amended) The composition of claim 109, wherein the nucleic acid is a DNA molecule.

113. (previously once amended) A method of making a fusion protein, the method comprising the steps of:

(a) introducing into a cell an expression vector comprising a nucleic acid according to claims 93 or 103;

(b) culturing the transfected cell; and

(c) purifying the expressed fusion protein.

114. (as filed) The method of claim 113, wherein the cell is a CHO cell.

115. (as filed) The method of claim 113, wherein the cell is cultured in suspension, under serum-free conditions.

116. (previously once amended) The method of claim 113, wherein the expressed fusion protein is purified by a two-step procedure, the procedure comprising:

(a) anion exchange chromatography; and

(b) hydrophobic chromatography.

117. (as filed) The nucleic acid of claim 93, wherein the nucleic acid encodes a fusion protein comprising an amino acid sequence of SEQ ID NO:3 linked to an amino acid sequence of SEQ ID NO:4.

118. (as filed) The nucleic acid of claim 93, wherein the nucleic acid encodes a fusion protein comprising an amino acid sequence of SEQ ID NO:3 linked to an amino acid sequence of SEQ ID NO:5.

119. (as filed) The nucleic acid of claim 93, wherein the nucleic acid encodes an amino acid sequence of SEQ ID NO:6.

120. (as filed) The nucleic acid of claim 93, wherein the nucleic acid encodes an amino acid sequence of SEQ ID NO:7.

121 (as filed) The nucleic acid of claim 93, wherein the nucleic acid encodes a secreted fusion protein.

122. (as filed) The nucleic acid of claim 103, wherein the nucleic acid encodes a fusion protein comprising an amino acid sequence of SEQ ID NO:3 linked to an amino acid sequence of SEQ ID NO:5.

123. (as filed) The nucleic acid of claim 103, wherein the nucleic acid encodes an amino acid sequence of SEQ ID NO:7.

124. (as filed) The nucleic acid of claim 103, wherein the nucleic acid encodes a secreted fusion protein.

125. (new) The composition of claim 109, comprising an oil-in-water emulsion.

126. (new) The composition of claim 125, comprising tocopherol.

127. (new) The composition of claim 111, wherein the immunostimulatory substance comprises 3D-MPL, QS21, or a combination of 3D-MPL and QS21.

128. (new) The composition of claim 111, wherein the immunostimulatory substance comprises 3D-MPL and QS21 in an oil-in-water emulsion.

129. (new) The composition of claim 128, comprising tocopherol.

130. (new) The composition of claim 109, comprising a CpG-containing oligonucleotide.